Exploiting Real-Time Data with ArcGIS GeoEvent Processor for Server

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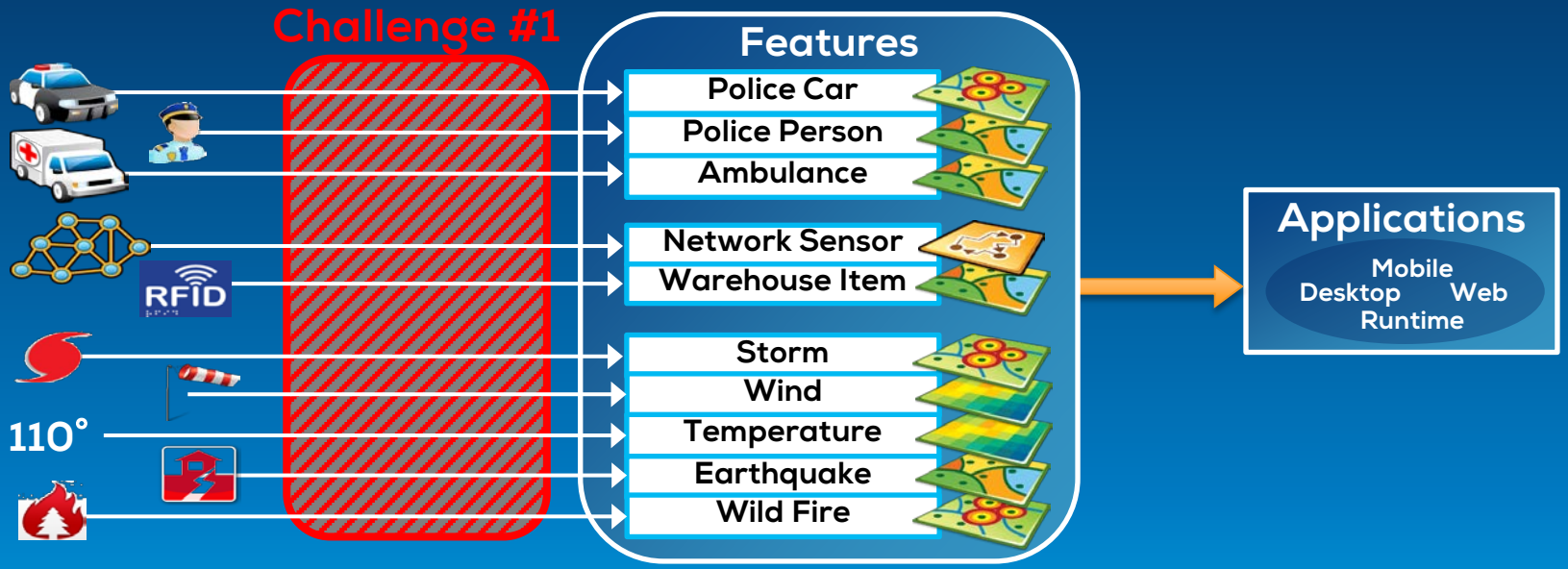
GIS data

- Typically represents state at a specific moment in time: “historic”, “current”, or “future”.

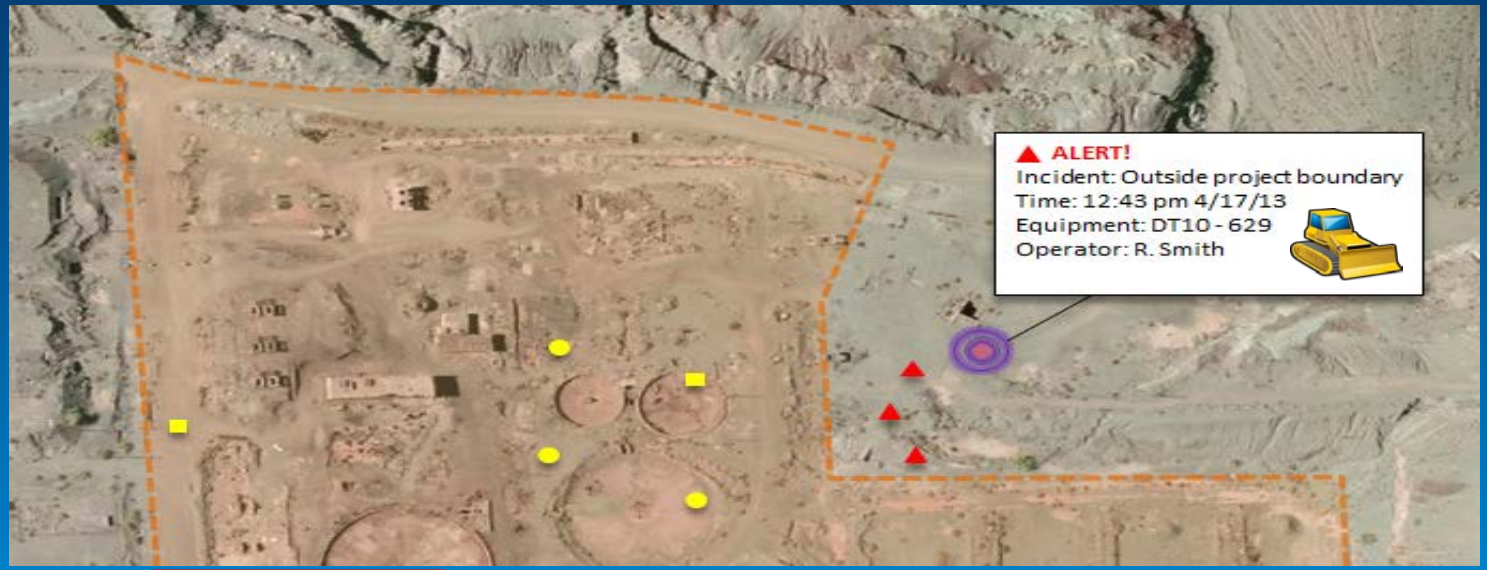
Credit: iStockphoto/chris_lemmens

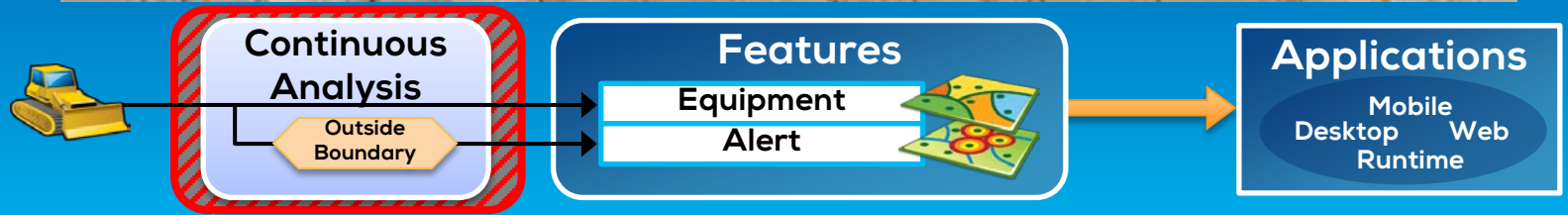
Real-time GIS data

...continuous stream of events flowing from sensors representing the latest state.



Analyzing real-time GIS data

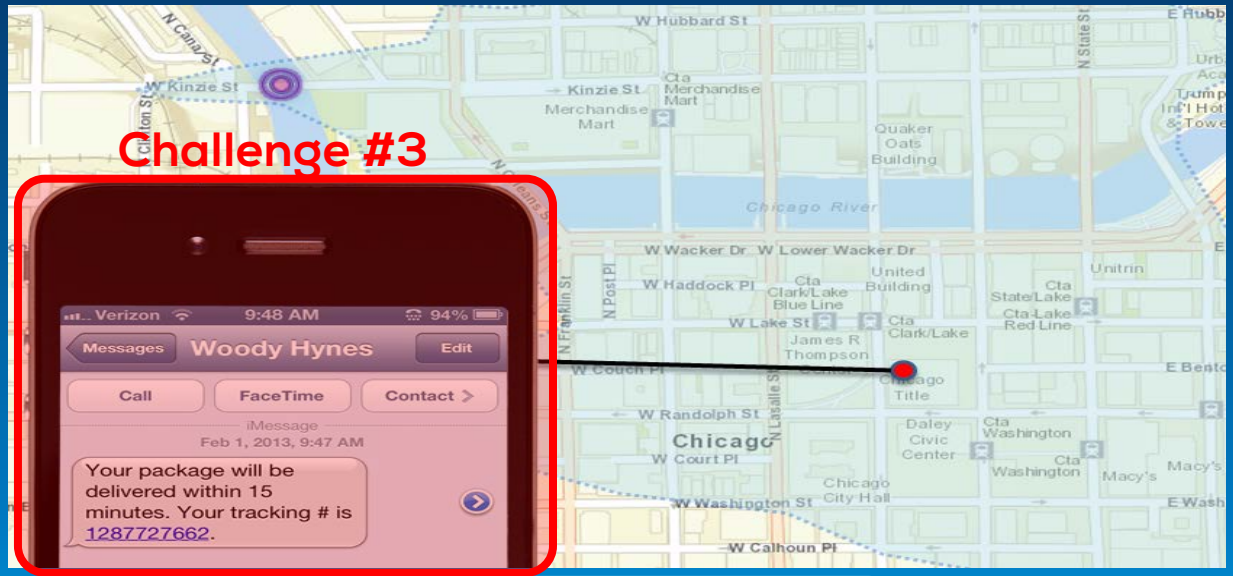




Challenge #2

...Are my field personnel working within the designated project area?

Analyzing real-time GIS data



Continuous Analysis

Enter Customer Area

Features

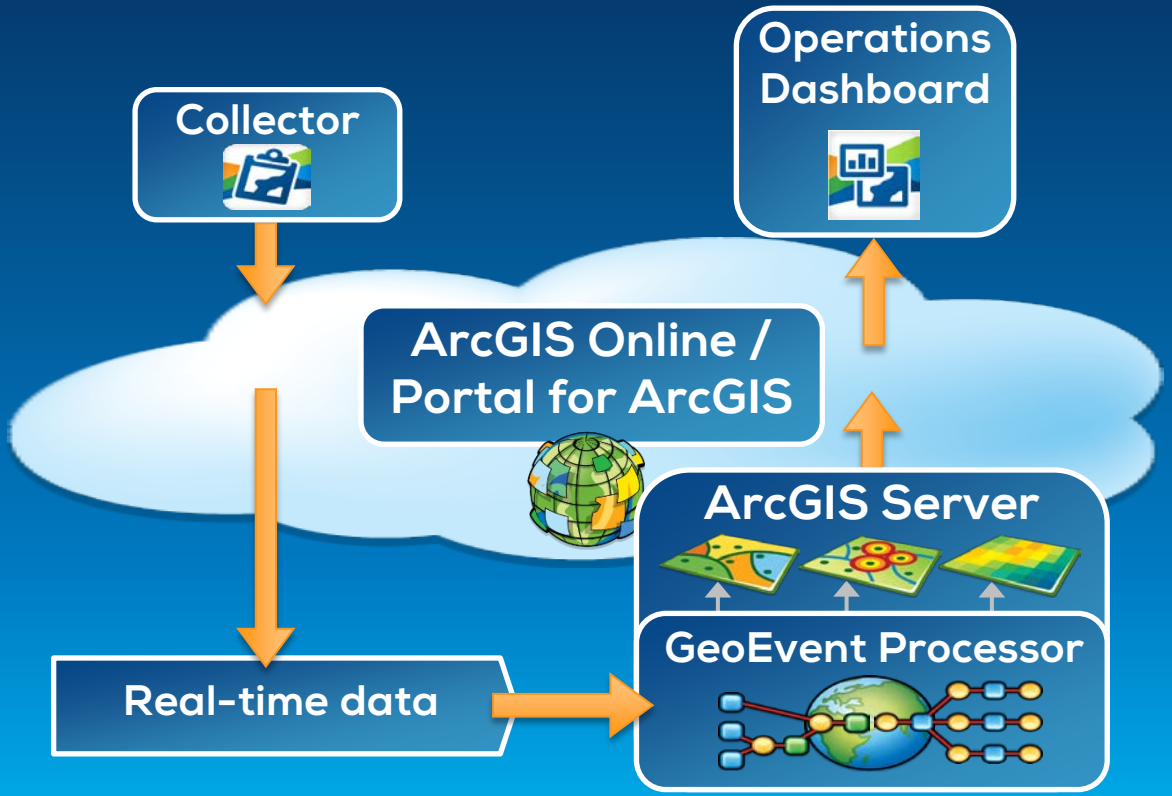
- Delivery Vehicle
- Notification

Applications

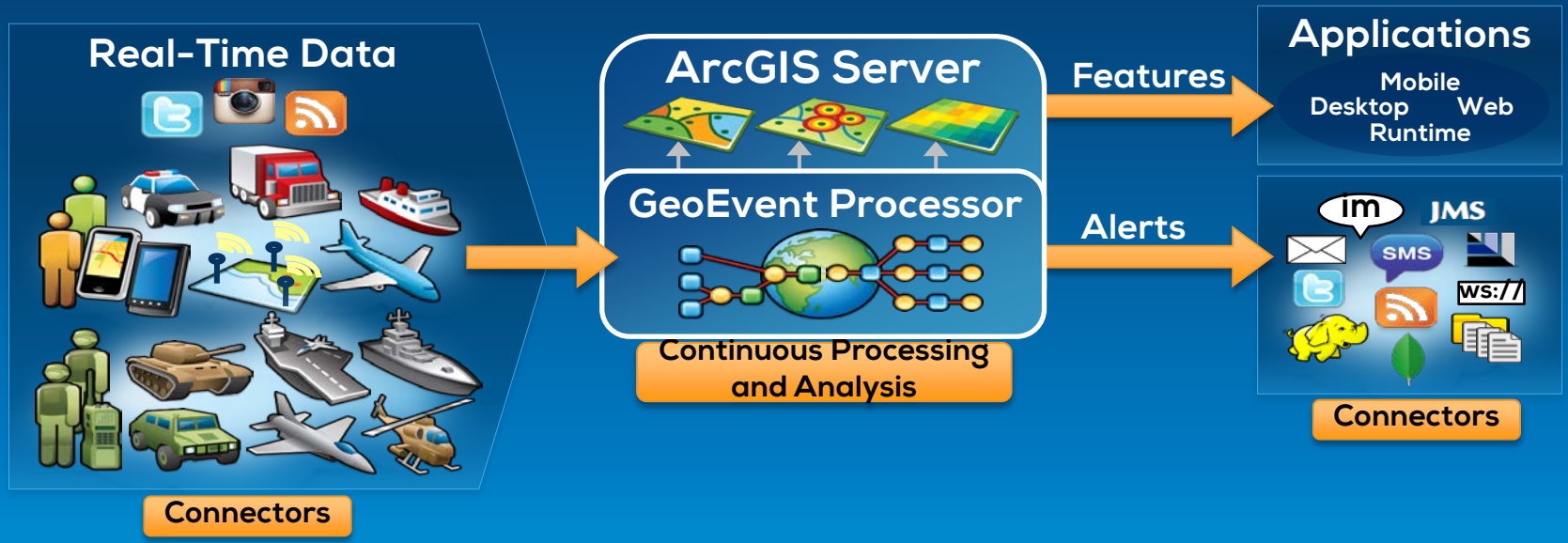
Mobile
Desktop Web
Runtime

…Tell customer when their delivery truck is 15 minutes away.

ArcGIS supports real-time GIS



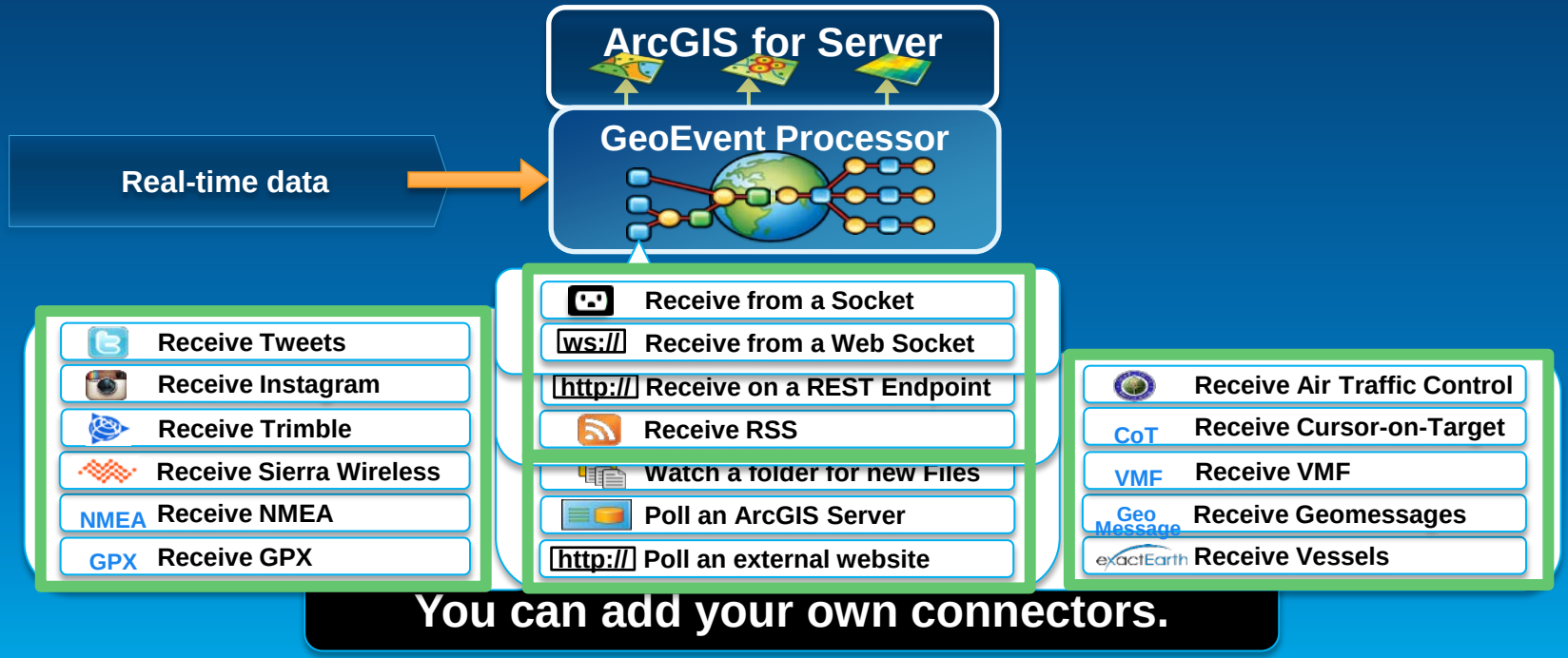
ArcGIS GeoEvent Processor for Server

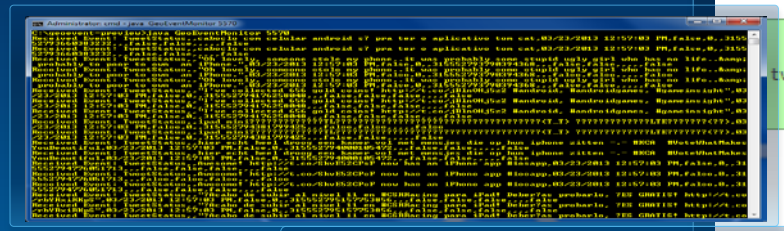


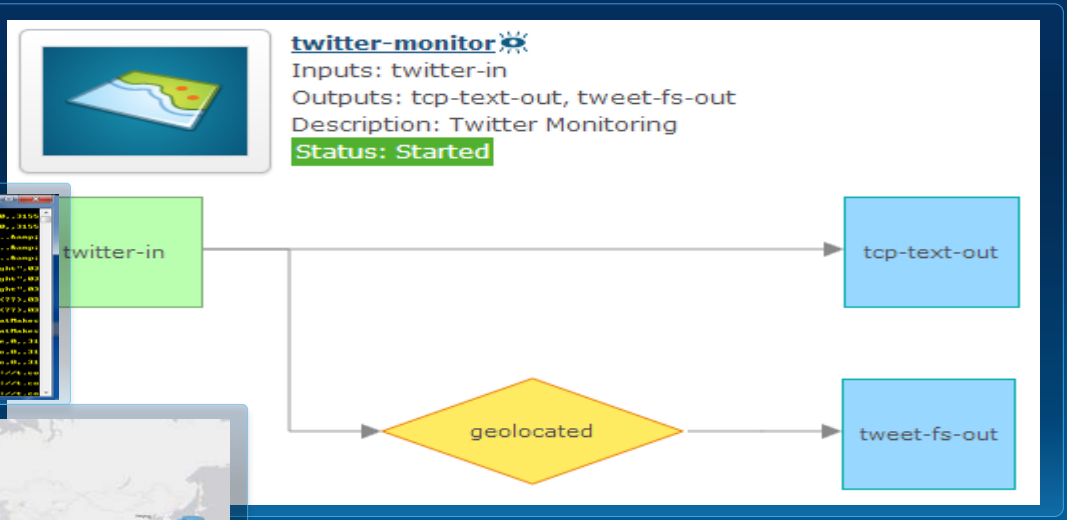
Working with real-time data

Receiving real-time data

Input connectors…





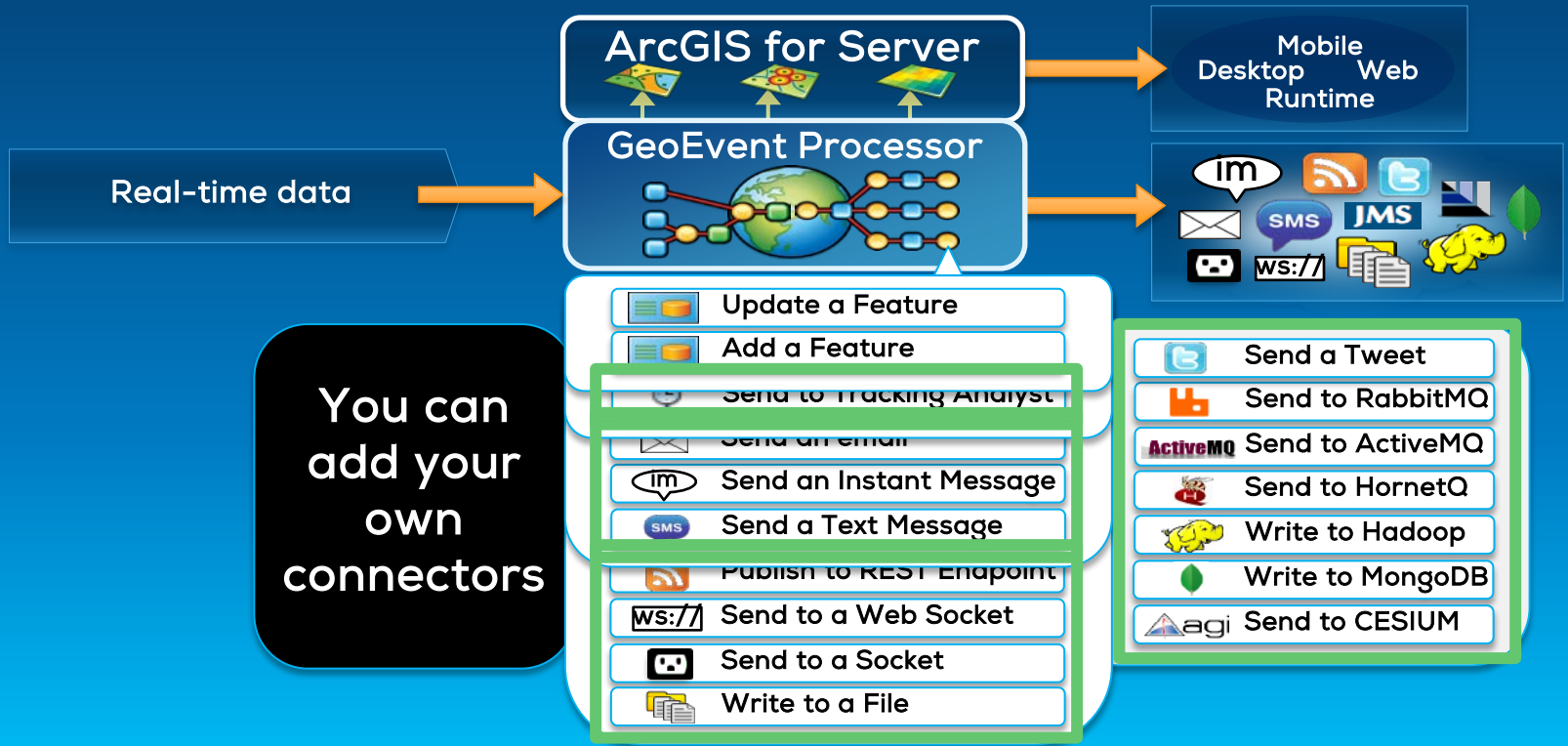


Name	Status	Count	Rate (over last 5 mins)		Max Rate	Time Since Last
tweet-fs-out	STARTED	40	0.39 /sec		0.64 /sec	00:00:00
tcp-text-out	STARTED	6566	64.37 /sec		65.07 /sec	00:00:00

Demonstration | Twitter monitoring

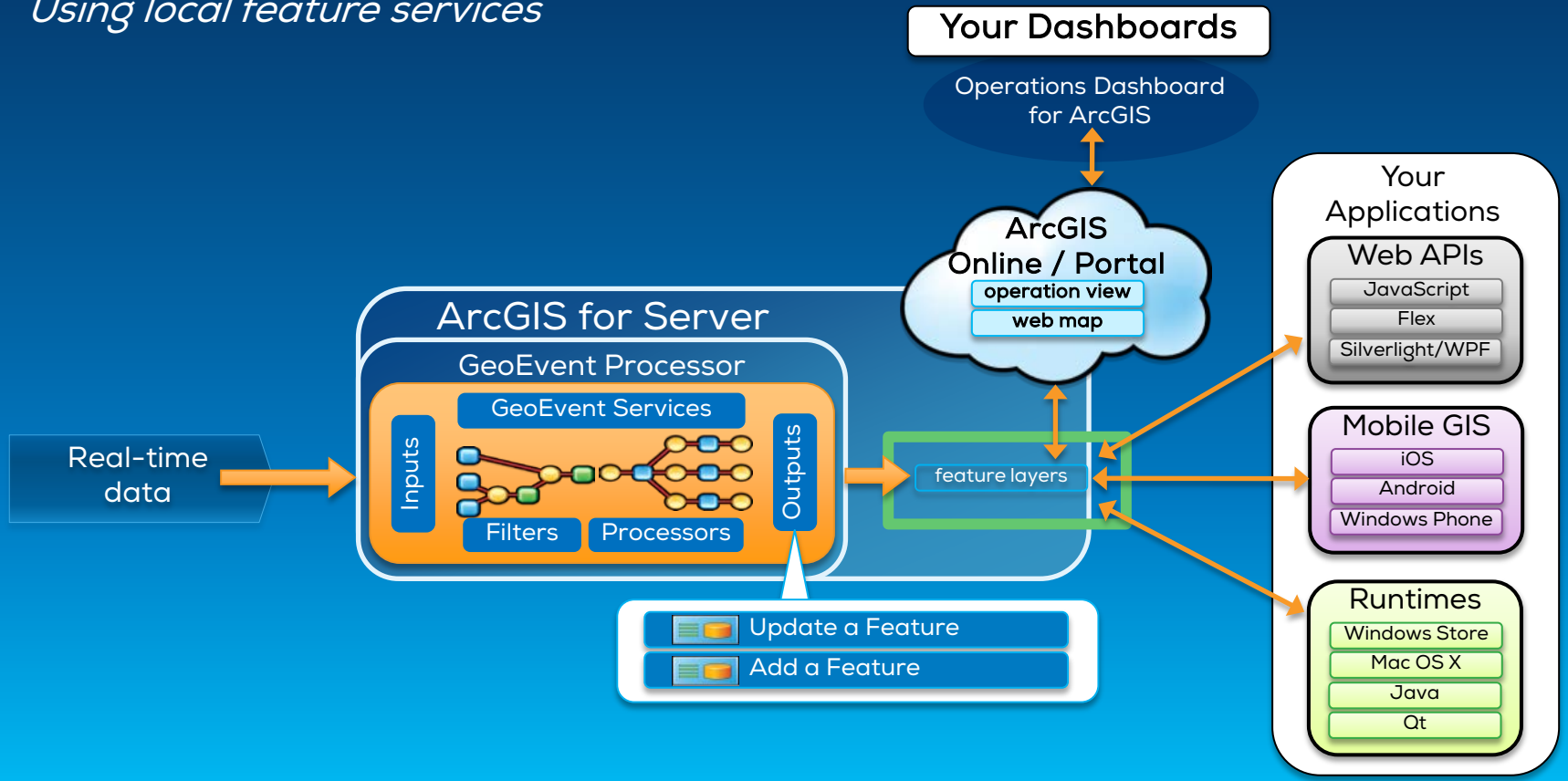
Sending real-time data

Output connectors…



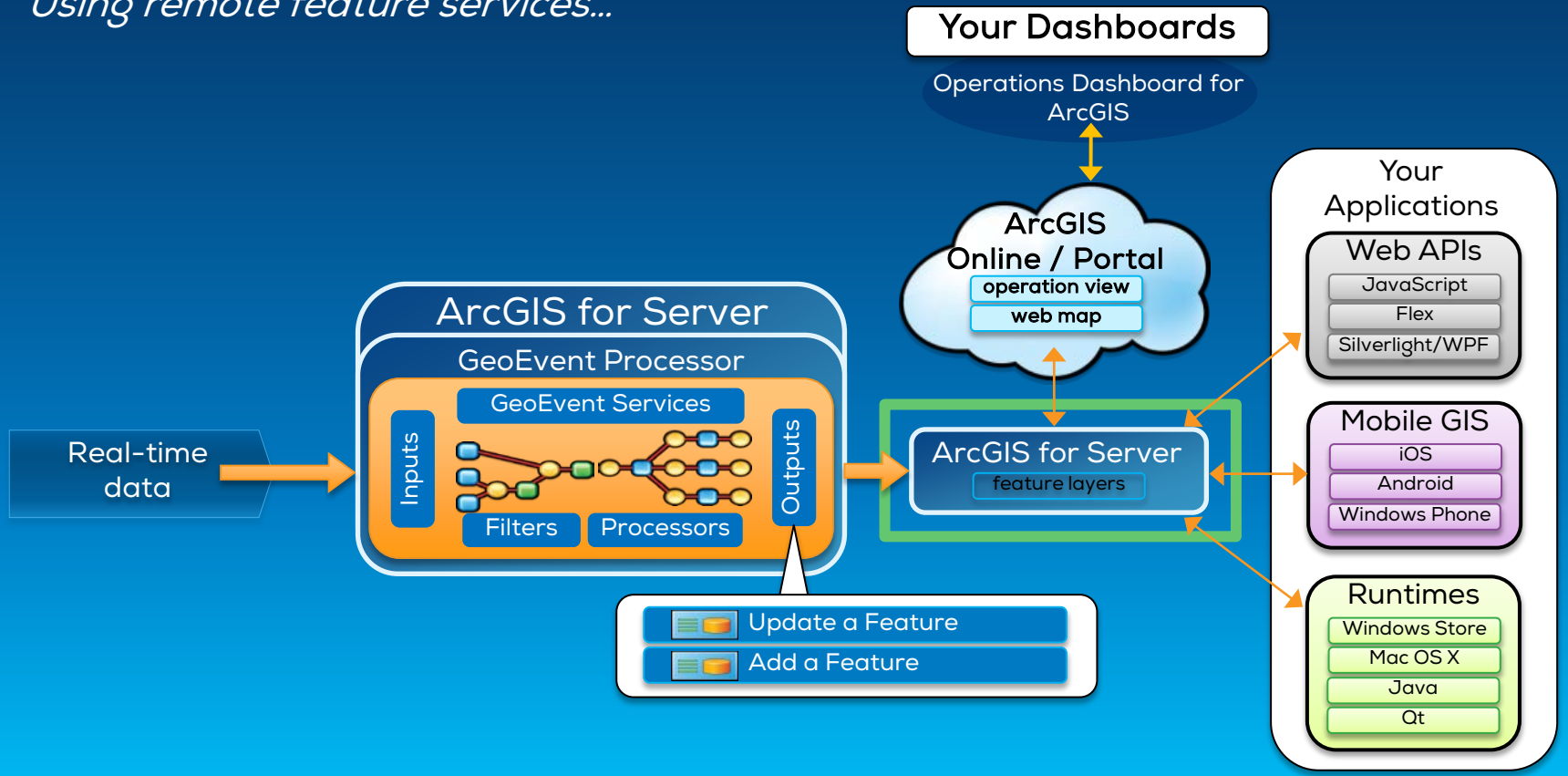
Sending real-time data to features

Using local feature services



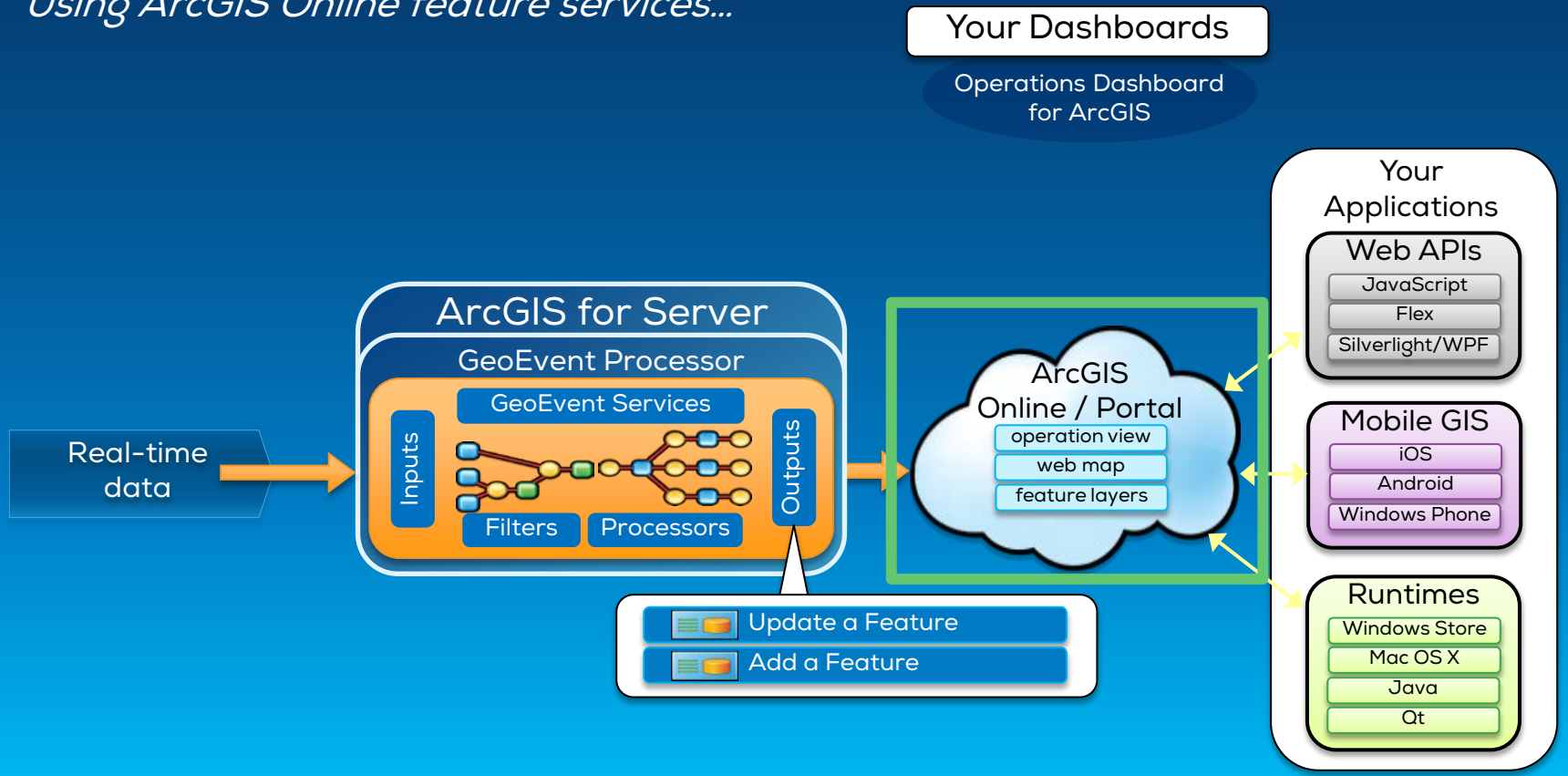
Sending real-time data to features

Using remote feature services…



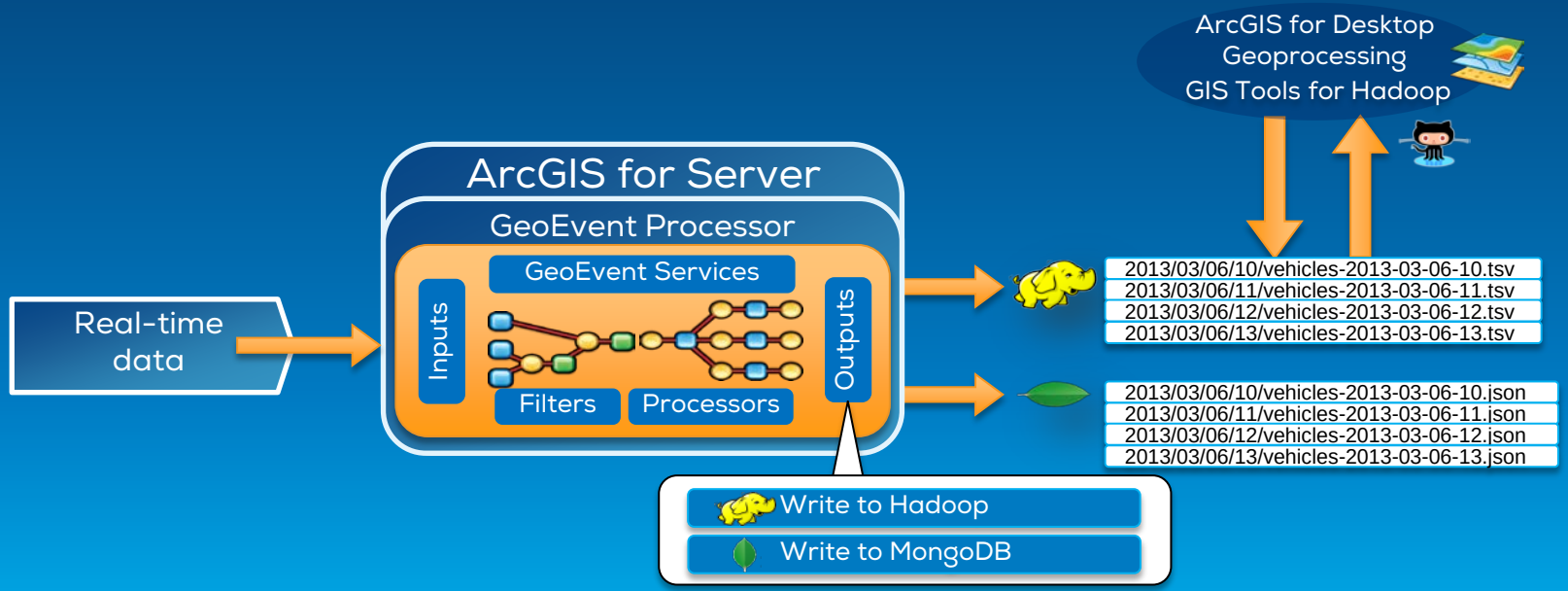
Sending real-time data to features

Using ArcGIS Online feature services…

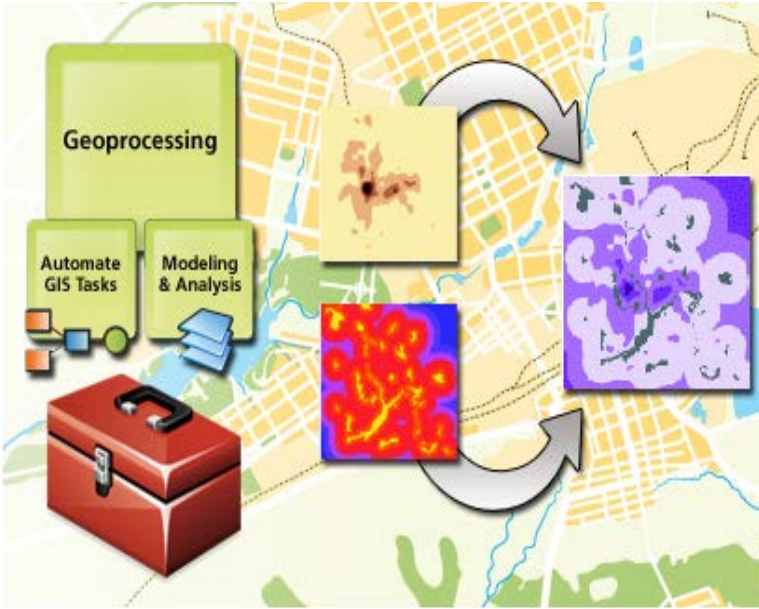


Sending real-time data to big data stores

Write to a Hadoop Distributed File System (HDFS)
Write to a MongoDB Document Store

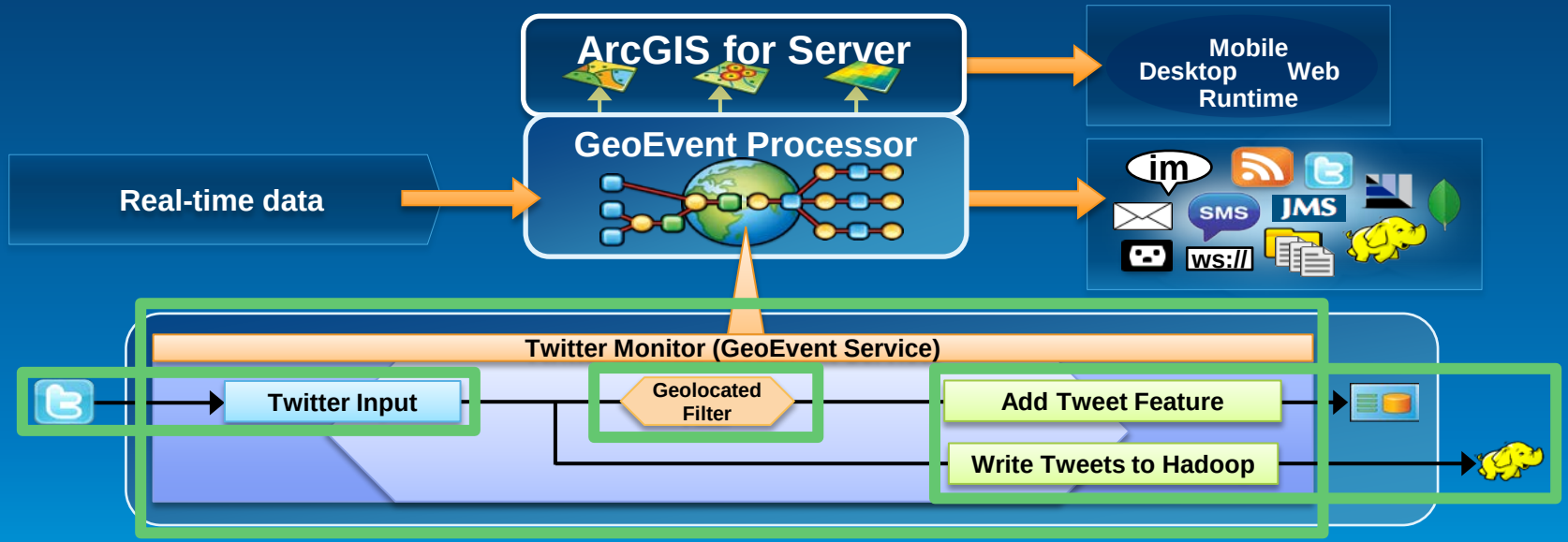


Performing continuous processing and analysis



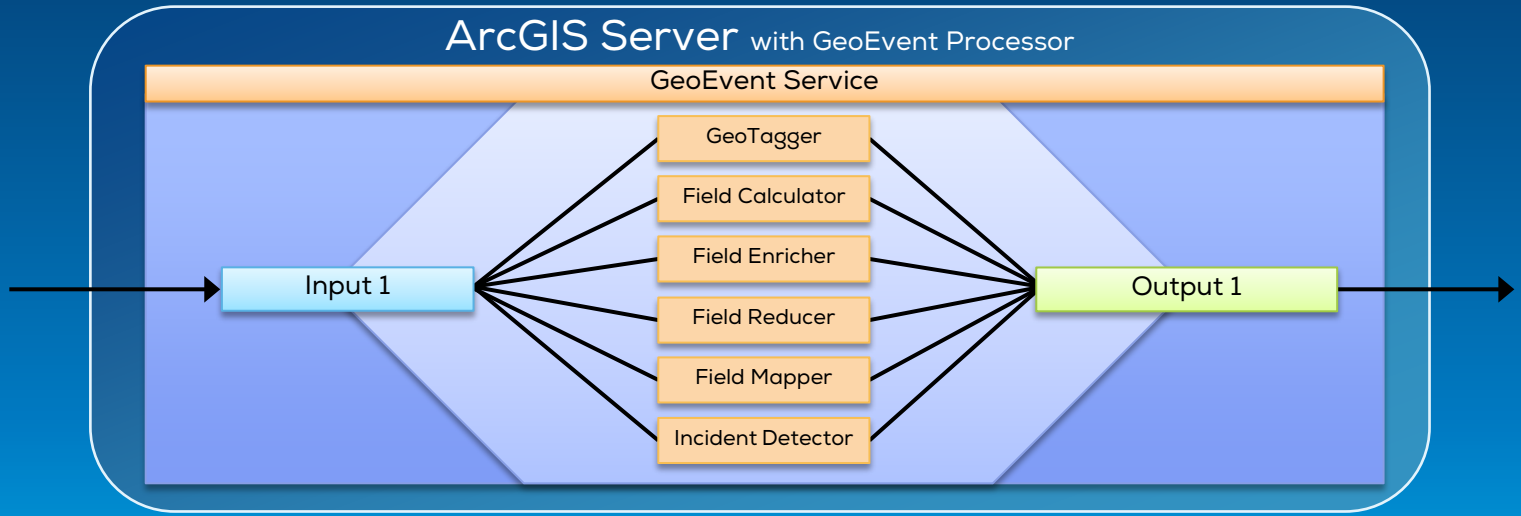
Continuous processing and analysis

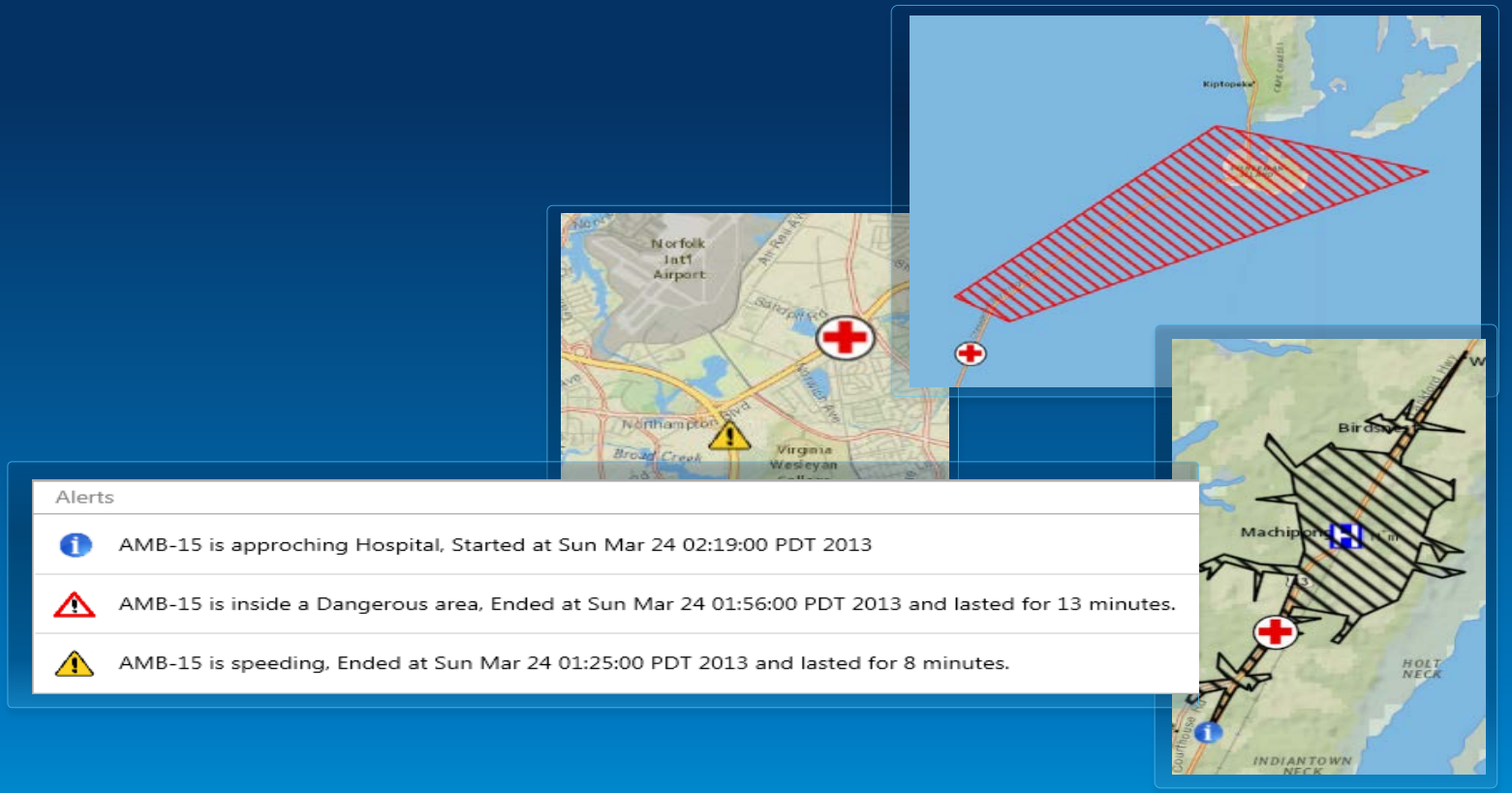
GeoEvent Services…



Continuous processing and analysis

Processors…





Demonstration | Vehicle monitoring

Wrap Up

Real-time GIS with GeoEvent Processor

Summary

- ArcGIS is a dynamic platform that enables real-time visualization, continuous analysis, and understanding of our world.
- GeoEvent Processor allows you to:
  - be alerted when interesting events occur
  - react and make smarter decisions faster
  - to know what is happening, as it happens
- Product Page
  - http://pro.arcgis.com/share/geoevent-processor

questions?
& answers

Understanding our world.